

1     **WHAT IS CLAIMED IS:**

2             1. An adjustable tuning tube for a clarinet comprising:

3             an outer tube having a first upper chamber defined at an upper portion of  
4     the outer tube, a lower chamber defined at a lower portion thereof, a middle  
5     portion between the first upper chamber and the lower chamber, an arcuate slot  
6     transversally defined at an outer periphery of the middle portion of the outer tube,  
7     an opening defined in a face defining the arcuate slot and through the outer tube,  
8     a button pivotally mounted in the arcuate slot and having a finger formed at a  
9     first end of the button and extending in the outer tube through the opening, and  
10    multiple first teeth formed at an inner wall of the finger; and

11            an inner tube having an upper part received in the first upper chamber of  
12    the outer tube, a lower part received in the middle portion of the outer tube, a  
13    second upper chamber defined at the upper part of the inner tube, and multiple  
14    second teeth formed at the lower part of the inner tube and matching the first  
15    teeth of the button.

16            2. The adjustable tuning tube as claimed in claim 1, wherein the face  
17    defining the arcuate slot further has a recess defined beside the opening, and a  
18    resilient member mounted in the recess and abutting a second end of the button.

19            3. The adjustable tuning tube as claimed in claim 1, wherein the outer  
20    tube has at least one groove longitudinally defined in an inner wall of the middle  
21    portion of the outer tube; and the inner tube has at least one ridge longitudinally  
22    formed at the outer periphery of the lower part and received in the groove.

23            4. The adjustable tuning tube as claimed in claim 3, wherein the inner  
24    tube has an elongated slot defined in the ridge, and the outer tube has a pin

- 1 radially inserted through the groove and into the elongated slot.
- 2 5. The adjustable tuning tube as claimed in claim 1 further comprising
- 3 an O-ring provided between the middle portion of the outer tube and the lower
- 4 part of the inner tube.